

Port of Alice Springs – Under-keel clearance management
Panamax bulk carriers

Ship	<i>MV Example</i>	Transit	Inbound / Outbound
Transit date & time	<i>18 Oct 2016, 10:40</i>	Pilot	<i>John Smith</i>
Waves: Swell H _s	<i>0.35 m</i>	Swell T _P	<i>11.2 s</i>

Required tide calculation – all in metres	
A. Ship draught	<i>12.10</i>
B. (Table 1) Required Static UKC	<i>1.30</i>
C. (Table 2) Ship speed adjustment	<i>0.00</i>
D. Required depth = A+B+C	<i>13.40</i>
E. Minimum charted depth	<i>12.50</i>
F. Required tide height = D-E	<i>0.90</i>
G. Tidal residual	<i>0.10</i>
H. Minimum safe tide = F-G	<i>0.80</i>

	Alongside berth	End of channel
Time	<i>10:40</i>	<i>11:40</i>
Required tide (H)	<i>0.80</i>	<i>0.80</i>
Predicted tide	<i>0.92</i>	<i>1.04</i>
Compliant	Y /N	Y /N

Table 1: Required Static UKC, metres				
Swell significant wave height H _s	Swell peak period T _P			
	8.0 – 10.0 s	10.1 – 12.0 s	12.1 – 14.0 s	14.1 – 25.0 s
0.00 – 0.25 m	x.xx	x.xx	x.xx	x.xx
0.26 – 0.50 m	x.xx	1.30	x.xx	x.xx
0.51 – 0.75 m	x.xx	x.xx	x.xx	x.xx
0.76 – 1.00 m	x.xx	x.xx	x.xx	x.xx
1.01 – 1.25 m	x.xx	x.xx	x.xx	x.xx
1.26 – 1.50 m	x.xx	x.xx	x.xx	x.xx
1.51 – 1.75 m	x.xx	x.xx	x.xx	x.xx
1.76 – 2.00 m	x.xx	x.xx	x.xx	x.xx

Table 2: Ship speed adjustment, metres	
Slow	-0.20
Medium	0.00
Fast	0.20